

Letter to the editor: Management of patients with Ebola virus disease in Europe: high-level isolation units should have a key role

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To the editor:

We read with interest the article by de Jong and colleagues, who provide an initial insight into European hospital preparedness level for the admission of a patient with Ebola virus disease (EVD) [1].

In the past, the rare imported cases of Ebola and Marburg in western European countries and the United States were managed in high-level isolation units (HLIUs) [2]. Subsequently, reported experiences indicate that strict contact-droplet isolation is enough for preventing transmission. From this hypothesis, the idea may derive that HLIUs are not strictly necessary for the management of EVD patients, who may be safely managed in non-specialised hospitals, as suggested by some international recommendations elaborated during the current Ebola outbreak in West Africa [3,4]. Even if we concur that strict contact-droplet isolation is enough to prevent transmission during routine care, we believe that HLIUs should have a key role in EVD containment in countries where such facilities are available. An HLIU is a healthcare facility specifically designed to provide safe, secure, high-quality, and appropriate care, with optimal infection containment and infection prevention and control procedures, for a single patient or a small number of patients who have, or who may have, a highly infectious disease [5].

In hospitals, breaches in infection control may occur; many healthcare associated infections could be prevented by standard precautions and contact isolation measures, but despite this, they continue to hit thousands of patients and to increase health-related costs [6]; measures for preventing needlestick and sharp injuries are well-known, but many of these accidents occur every day; hand hygiene alone may prevent many infections, but this simple procedure is often poorly applied [6]. We believe that such breaches are not acceptable when managing a disease with 50% of case fatality rate such as EVD. Data from de Jong and

colleagues, reporting that practical exercises have been performed in 28.4% of responding hospitals only [1], as well as the secondary transmissions that occurred in Spain and the United States, reinforce this position.

Indeed, establishing precautions is not equal to their adherence. Well-trained staff, awareness about personal protective equipment and other infection control procedures, continuous practice, appropriate supervision, and adequate logistics are needed; in other words, an established 'infection control culture and practice'. Moreover, rooms with special technical air-handling features are necessary for aerosol-producing procedures [7].

We believe that this unique combination of technical and logistic equipment, well-trained and experienced staff, and long-term established and updated procedures, is available within HLIUs only, thereby representing the safest place to manage EVD.

In Europe, an assessment of isolation capabilities for the management of highly infectious diseases was performed in 2009–2010 within the European Network for Infectious Diseases/European Network for Highly Infectious Diseases (EUNID/EuroNHID) projects coordinated by the National Institute for Infectious Diseases 'Lazzaro Spallanzani' in Italy [8]. The EuroNHID Consortium currently includes 47 isolation facilities identified by the national health authorities as referral centres for highly infectious diseases (including EVD), in 20 countries (Austria, Bulgaria, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, Norway, Poland, Portugal, Spain, Slovenia, Sweden and the United Kingdom). The survey results are being updated in 2014: complete data are available from 12 countries; from the remaining eight countries, partial data are available. According to currently available data, among

the 47 isolation facilities 17 HLIUs are present in nine European countries, with at least 92 beds available, 57 of which with intensive care capacity. Additional capacity may be present in other countries not participating to EuroNHID Consortium. This bed capacity (not expected to change significantly after the collection of pending data) is surely enough to effectively manage Ebola patients in Europe, in the current epidemiological situation.

In conclusion, we strongly believe that HLIUs should play a crucial role in management of patients, and preparedness plans should include referral of EVD patients to these facilities as early as possible.

Other members of EuroNHID Consortium are:

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Conflict of interest

None declared.

Authors' contribution

All authors equally contributed to manuscript concept and writing. All authors gave their final approval to the manuscript contents.

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